RESPONSE OF BAY STATE GAS COMPANY TO RECORD REQUESTS FROM THE D.T.E. D.T.E. 05-27

Date: July 13, 2005

Responsible: Stephen H. Bryant, President

RR-DTE-2: Can you provide the number of employees lost through early retirement

and severance since 1997?

Response: Table RR-DTE-2 below indicates the number of severances and early

retirements for 2000-2004. Due to changes in the human resources

information system, 1997-1999 are not readily available.

Table RR-DTE-2

Severance			Early Retirement			
Year	Non Union	Union		Non Union	Union	
2004	0	0		3	9	
2003	4	1		3	7	
2002	40	1		17	8	
2001	16	0		1	8	
2000	39	0		1	2	

RESPONSE OF BAY STATE GAS COMPANY TO RECORD REQUESTS FROM THE D.T.E. D.T.E. 05-27

Date: July 13, 2005

Responsible: Danny G. Cote, General Manager

RR-DTE-17: Provide explanation of cause of the dip in 2002 - supply a graph that separates new and replacement service lines.

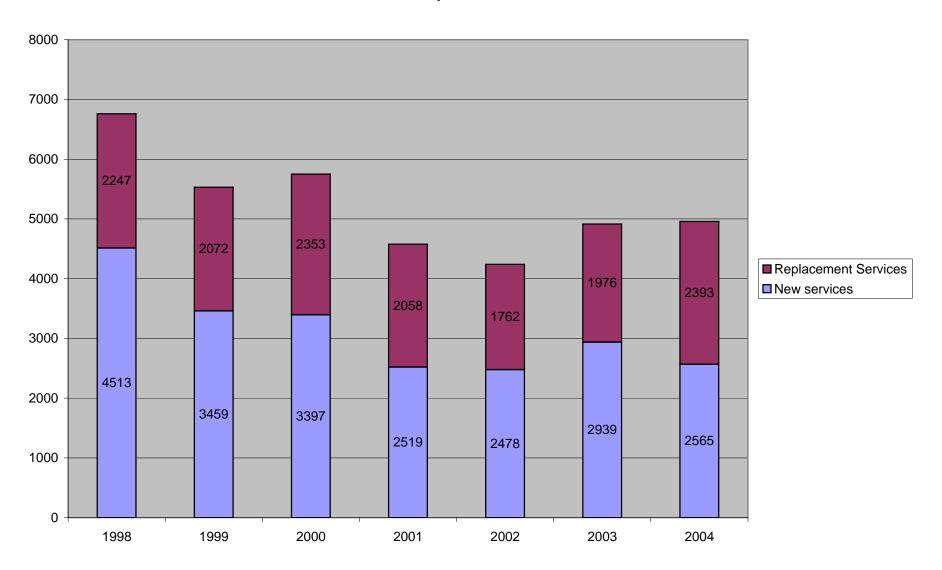
Response:

A) See Attachment RR-DTE-17 for the bar chart and data supplement. You will note that the chart separates new and replacement main from 1998-2004. The dip in 2002 appears to be attributed to a decrease in the level of activity for both growth and replacement. After further review of each service area (Brockton, Springfield, Lawrence) the data reflects that growth decreased in all 3 locations however Brockton's growth activity reduced most significantly. This could be attributed to the economic factors within the local economy and reduced housing starts for that year. Additionally, the Company reduced it's sales staff which could also be a contributing factor for reduced growth installations.

Springfield and Brockton's replacement activity decreased; however you will also note that Lawrence's main replacement activity increased and doubled from the previous year, 2001. These increases and decreases in main replacement are driven by the road and bridge reconstruction for the local areas. As the State D.O.T. and municipalities increase or decrease their road and bridge reconstruction; main replacement activity moves proportionally.

B) Please see Attachment RR-DTE-17 for the graph of New and Replacement Services in Massachusetts 1998 to 2004. Service activity will move up or down for the same reasons that main activity does noted above.

RR-DTE-17
New and Replacement Services



RESPONSE OF BAY STATE GAS COMPANY TO RECORD REQUESTS FROM THE D.T.E. D.T.E. 05-27

Date: July 13, 2005

Responsible: Lawrence Kaufmann, Consultant

RR-DTE-27: Refer to the Company's response to DTE15-21. The Company stated

that possibly the efficiencies Bay State registered under the rate freeze period would not be manifested as a lower cost function intercept. Please discuss why the Company has not considered a slope-dummy variable (instead of a dummy intercept variable) to isolate the rate freeze period

effect on the O&M costs.

Response: To investigate this issue, we investigated an econometric specification

that included a variable that was equal to the time trend variable included in our model *multiplied by* a PBR dummy variable for Bay State Gas. The coefficient on this variable was equal to -0.16%, but it was not quite

statistically significant. For the results of this regression, see Attachment

RR-DTE-27.

Bay State Gas
DTE 05-27
Attachment RR-DTE-27

GAUSS Data Export Facility

Begin export...

Export completed

Number of cases in GAUSS data set: 416.000 Number of cases written to foreign file: 416.000 Number of variables written to foreign file: 29.000

Date: 7/11/05 **** SUR ESTIMATION RESULTS **** Time: 17:18:41

OUTPUT FILE:C:\work\BAYSTATE\results\DR_05aa

DATA FILE:C:\work\BAYSTATE\bench03F.xls

DEFINITIONS OF OUTPUT VARIABLES:

Y1 is number of customers.

Y2 is Total deliveries.

DEFINITIONS OF BUSINESS CONDITION VARIABLES:

Z1 is % of non-iron and steel in Dx miles

Z2 is Number of Electric Customers

Z3 is northeast dummy variable

Z4 is Miles of Distribution Main

Z5 is Bay State Pbr dummy times trend (dummy slope var)

Model includes time trend.

Time period used: 1994 through 2003

k = nadd10

GAUSS Data Import Facility

Begin import...

Import completed

Number of rows in input file: 430

Number of cases written to GAUSS data set:

Number of variables written to GAUSS data set: 60

1

416

SEEMINGLY UNRELATED REGRESSION WITH HETEROSKEDASTICITY 7/11/2005 5:18 pm

Data Set: C:\work\BAYSTATE\Temp_3.dat

DIVISOR USING N IN EFFECT RESTRICTIONS IN EFFECT

ITER. # = LOG OF DETERMINANT OF SIGMA = 2.89346466

ITER. # = 1 LOG OF DETERMINANT OF SIGMA = 2.88331777

ITER. # = 2 LOG OF DETERMINANT OF SIGMA = 2.88270496

ITER. # = 3 LOG OF DETERMINANT OF SIGMA = 2.88266995

ITER. # = 4 LOG OF DETERMINANT OF SIGMA = 2.88266797

ITER. # = 5 LOG OF DETERMINANT OF SIGMA = 2.88266786

ITER. # = 6 LOG OF DETERMINANT OF SIGMA = 2.88266786

ITER. # = 7 LOG OF DETERMINANT OF SIGMA = 2.88266786

ITER. # = 8 LOG OF DETERMINANT OF SIGMA = 2.88266786

Equation: 1

Dependent variable:

Total cases: 416 Valid cases: 416 Total SS: 368.757 Degrees of freedom: ---R-squared: 0.909 Rbar-squared: 0.907
Residual SS: 33.477 Std error of est: 2.447

Durbin-Watson: 0.347

	Estimated S	tandard	Prob	
Variable	Coefficient	Error t-1	ratio >	t
CONST	6.85541973	0.02412655	284.14	4 0.0000
WL	0.57090400	0.00519622	109.869	0.0000
Y1	0.48519227	0.06580849	7.373	0.0000
Y2	0.11974479	0.05185677	2.309	0.0214
WLWL	-0.20266881	0.04574431	-4.430	0.0000
Y1Y1	-0.10071367	0.10262813	-0.981	0.3270
Y2Y2	-0.06157263	0.14911629	-0.413	0.6799
WLY1	-0.04302425	0.01266963	-3.396	0.0008
WLY2	0.02411454	0.01375243	1.753	0.0803
Y1Y2	0.10625201	0.12094863	0.878	0.3802
Z 1	-0.37415641	0.06839807	-5.470	0.0000
Z 2	-0.01232182	0.00162943	-7.562	0.0000
Z 3	0.07954115	0.01088194	7.309	0.0000
Z 4	0.27339250	0.05767021	4.741	0.0000
Z 5	-0.00161181	0.00126035	-1.279	0.2017
TREND	-0.01212843	0.00338809	-3.580	0.0004
K	-0.11383481	0.01667623	-6.826	0.0000

Equation: 2

Dependent variable: SL

Total cases:416Valid cases:416Total SS:8.878Degrees of freedom:----R-squared:0.110Rbar-squared:0.112Residual SS:7.899Std error of est:1.773

Durbin-Watson: 0.491

	Estimated St	tandard	Prob	
Variable	Coefficient	Error t-r	ratio >	t
CONST	0.57090400	0.00519622	109.86	9 +DEN
WL	-0.20266881	0.04574431	-4.430	0.0000
Y1	-0.04302425	0.01266963	-3.396	0.0007
Y2	0.02411454	0.01375243	1.753	0.0803

MEASURES OF GOODNESS-OF-FIT

AN UNCENTERED SYSTEM R-SQUARE 0.905

A CENTERED SYSTEM R-SQUARE 0.912

The results from the test of the null hypothesis that all slope coefficients in all equations are simultaneously equal to zero.

Test statistic	Prob > t	
1010.700	0.0000	

VALIDATION OF REGULARITY CONDITIONS

Monotonicity of the Estimated Cost Function

The number of observations for which each of the following predicted cost share is nonpositive is listed below

Labor	Materials
0	0
(0.00%)	(0.00%)

Concavity of the Estimated Cost Function

The number of the observations for which the condition that the matrix of second order partial derivatives of the cost function with respect to input wages is negative semi-definite holds:

416 (100.00 %)

Quasi-Concavity of the Estimated Cost Function

The number of observations for which the condition that the cost function is strictly quasi-concave in input prices holds:

416 (100.00 %)

Second Order Condition for Cost Minimization

The number of the observations for which the condition that the bordered Hessian is negative definite holds:

416 (100.00 %)

RESPONSE OF BAY STATE GAS COMPANY TO RECORD REQUESTS FROM THE D.T.E. D.T.E. 05-27

Date: July 13, 2005

Responsible: Lawrence Kaufmann, Consultant

RR-DTE-28:

- a) Refer to the econometric cost model at Exh. BSG/LRK-2. Please indicate whether the Company estimated a variable short-run cost function (together with the input share equations). If yes, please explain the advantages and disadvantages of estimating a short-run cost function vs. long-run cost function in evaluating cost performance of utilities for rate making purposes;
- b) Please indicate whether the Company estimated a variable short-run cost function in the econometric cost study performed in Boston Gas, DTE 03-40;
- c) If answers in part a) and b) are different, please explain why.

Response:

- a) Yes, Pacific Economics Group (PEG) estimated a short-run cost model, along with the labor input share equation. In the current context, the main advantage of estimating a short-run function is that it does not require estimates of capital costs. This is also the main disadvantage of estimating a long-run cost function. The main advantage of estimating a long-run cost function is that it potentially leads to an evaluation of a utility's comprehensive cost performance. Short-run cost functions evaluate only operation and maintenance cost performance, which is their main disadvantage.
- b) We did not estimate a short-run cost function for Boston Gas in D.T.E. 03-40.
- c) The differences between the cost models examined for Boston Gas and Bay State were explained in detail in my oral testimony on July 8, 2005.

RESPONSE OF BAY STATE GAS COMPANY TO RECORD REQUESTS FROM THE D.T.E. D.T.E. 05-27

Date: July 13, 2005

Responsible: John Skirtich, Consultant (Revenue Requirements)

RR-DTE-35: Provide December 2004 sale/leaseback agreement (if there is one) for

Itron devices, as mentioned in D.T.E. 5-26.

Response: Please refer to Attachment RR-DTE-35 for a copy of the sale/leaseback

agreement.

Bay State Gas Company D.T.E. 05-27 Attachment RR-DTE-35 Page 1 of 6



LEASE SCHEDULE NO. 31946-00028 (True Lease Schedule)

One Financial Plaza Providence, Rhode Island 02903-2448

Lessee: BAY STATE GAS COMPANY Address: 300 FRIBERG PARKWAY WESTBOROUGH, MA 01581

- 1. This Lease Schedule No. 31946 00028 dated as of <u>December 14, 2004</u> is entered into pursuant to and incorporates by this reference, all of the terms and provisions of that certain Master Equipment Lease Agreement No. 31946 dated as of <u>OCTOBER 31, 1995</u> (the "Master Lease"), for the lease of the Equipment described in Schedule A attached hereto. This Lease Schedule shall constitute a separate, distinct and independent lease of the Equipment and the contractual obligation of Lessee. References to the "the Lease" or "this Lease" shall mean and refer to this Lease Schedule, together with the Master Lease and all exhibits, addenda, schedules, certificates, riders and other documents and instruments executed and delivered in connection with this Lease Schedule, all as the same may be amended or modified from time to time. All capitalized terms used herein and not defined herein shall have the meanings set forth or referred to in the Master Lease. By its execution and delivery of this Lease Schedule, Lessee hereby reaffirms all of the representations, warranties and covenants contained in the Master Lease, as of the date hereof, and further represents and warrants to Lessor that no Event of Default, and no event or condition which with notice or the passage of time or both would constitute an Event of Default, has occurred and is continuing as of the date hereof.
 - ACQUISITION COST. The Acquisition Cost of the Equipment is: \$2,536,278.00.
- 3. (a) LEASE TERM. The Lease Term shall commence on the date hereof and shall continue for a period of 107 months after the Lease Term Commencement Date set forth in the Acceptance Certificate to this Lease Schedule, plus any renewal or extended term applicable in accordance with the terms of the Lease.
- (b) RENTAL PAYMENTS. In addition to interim rent payable pursuant to Section 2 of the Master Lease, Lessee shall pay Lessor 107 consecutive Rental Payments in the amounts set forth in the schedule below, plus any applicable sales/use taxes, commencing on the Rental Payment Commencement Date set forth in the Acceptance Certificate and MONTHLY thereafter for the remaining Lease Term. Each Rental Payment shall be payable on the same day of the month as the Rental Payment Date in each succeeding rental period during the remaining Lease Term (each, a "Rental Payment Date"):

Number of Rental Payments

Amount of Each Rental Payment

1-53 54-107 \$25,842.29 \$30,336.60

- (c) ADVANCE RENTAL PAYMENT. Lessee agrees to pay Lessor the first $\underline{0}$ and last $\underline{0}$ Rental Payments, due and payable on the Acceptance Date.
- (d) SECURITY DEPOSIT. Lessee agrees to make a payment in an amount equal to Q% of the Acquisition Cost of the Equipment, due and payable on the Acceptance Date, to be held by Lessor as a non-interest bearing deposit to secure Lessee's performance under the Lease.
- 4. EQUIPMENT LOCATION (S). The Equipment will be located at the location(s) specified in Schedule A

Bay State Gas Company D.T.E. 05-27 Attachment RR-DTE-35 Page 2 of 6

- 5. Lessor will involce Lessee for all sales, use and/or personal property taxes as and when due and payable in accordance with applicable law, unless Lessee delivers to Lessor a valid exemption certificate with respect to such taxes. Delivery of such certificate shall constitute Lessee's representation and warranty that no such taxes shall become due and payable with respect to the Equipment, and Lessee shall indemnify and hold harmless Lessor from and against any and all liability or damages, including late charges and interest which Lessor may incur by reason of the assessment of such taxes.
 - 6. The Rental Payments may change for Equipment accepted after December 30, 2004
- Lessee represents that to the best of Lessee's knowledge the applicable recovery period for the Equipment, for purposes of Section 168 of the Internal Revenue Code of 1986, is as set forth in Schedule A hereto.

Dated as of: December 14, 2004

FLEET CAPITAL CORPORATION	BAY STATE GAS COMPANY
By: Policia Smek-Disu	Ву:
Name: Patricia Smith-Disu	Name: Najda
Title:	Title: Vice President and Treasurer

(MON) 6. 6'05 10:04/ST. 9:56/NO.4861039662 P Bay State Gas Company D.T.E. 05-27 Attachment RR-DTE-35

Page 3 of 6



SCHEDULE A EQUIPMENT

The following documents are attached to and made a part hereof: True Lease Schedule No.: 31946-00028, Acceptance Certificate and UCC Financing Statement

BAY STATE GAS COMPANY

Recovery Period:

5 Years

Oty

Model No. Misc Description

Vendor: Itron, Inc.

34,410 ERG-1006-201 ITRON IRT Devices

Mobile Collection System

with all standard and accessory equipment

FLEET CAPITAL CORPORATIO				
	BUT DEFE	A A TOTAL A	CODBOD	A CETT A
	F L.F.F. P.	LAPITAL		

Name: _ Vice President

Title: _

BAY STATE GAS

Name:

Vice President and Treasurer

Bay State Gas Company D.T.E. 05-27 Attachment RR-DTE-35 Page 4 of 6



WARRANTY BILL OF SALE

One Financial Plaza Providence, Rhode Island 02903-2448

BAY STATE GAS COMPANY ("Seller") of 300 FRIBERG PARKWAY, WESTBOROUGH, MA 01581, in consideration of the sum of \$2,536,278,00 Dollars, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, does hereby sell, transfer and assign to Fieet Capital Corporation ("FCC") a Rhode Island corporation having its principal office at One Financial Plaza, Providence, Rhode Island 02903, the equipment set forth in Schedule A hereto (the "Equipment").

Seller hereby covenants with and warrants to FCC that Seller is the lawful owner of the Equipment and has the right to sell the Equipment, and that the Equipment is free and clear of all rights, claims, liens, charges, security interests or encumbrances of any other person. Seller will forever indemnify, defend and warrant all of the rights of FCC in and to the Equipment transferred hereunder against the claims and demands of all other persons.

IN WITNESS WHEREOF, Seller has duly executed this Bill of Sale this 23 day of December, 2004.

BAY STATE GAS COMPANY



Bay State Gas Company D.T.E. 05-27 Attachment RR-DTE-35 Page 5 of 6



SCHEDULE A EQUIPMENT

The following documents are attached to and made a part hereof: Warranty Bill of Sale

with:

BAY STATE GAS COMPANY (31946-00028)

Recovery Period:

5 Years

Qty

Model No. Misc Description

Vendor: Itron, Inc.

34,410 ERG-1006-201 ITRON IRT Devices

MCI

Mobile Collection System

with all standard and accessory equipment

BAY STATE GAS COMPANY

Name: David

Title: Vice President and Treasurer

(MON) 6. 6'05 10:05/ST. 9:56/NO. 4861039662 P 9

Bay State Gas Company D.T.E. 05-27 Attachment RR-DTE-35 Page 6 of 6



ACCEPTANCE CERTIFICATE

One Financial Plaza Providence, Rhode Island 02903-2448

This Acceptance Certificate (this "Acceptance Certificate") is attached to and made a part of that certain Lease Schedule No. 31946 - 00028, dated as of December 14, 2004 (the "Lease Schedule"), by and between the undersigned parties. All capitalized terms used herein and not defined herein shall have the meanings set forth or referred to in the Lease Schedule. To the extent the terms set forth in this Acceptance Certificate differ or conflict with any of the terms set forth in the Lease, the terms set forth in this Acceptance Certificate shall control.

- Lessee acknowledges and agrees that each item of Equipment set forth on Schedule A hereto (collectively, the "Equipment") is hereby unconditionally accepted by Lessee for all purposes under the Lease at the locations specified in Schedule A hereto, and hereby agrees to faithfully perform all of its obligations under the Lease as of the date hereof (the "Acceptance Date").
- 2. By its execution and delivery of this Acceptance Certificate, Lessee hereby reaffirms all of the representations, warranties and covenants contained in the Lease as of the date hereof, and further represents and warrants to Lessor that no Event of Default, and no event or condition which with notice or the passage of time or both would constitute an Event of Default, has occurred and is continuing as of the date hereof. Lessee further certifies to Lessor that Lessee has selected the Equipment and has received and approved the purchase order, purchase agreement or supply contract under which the Equipment will be acquired for all purposes of the Lease.
- 3. Lessee hereby represents and warrants that: (a) the Equipment has been delivered and is in an operating condition and performing the operation for which it is intended to the satisfaction of the Lessee.

4.	THE LEASE TERM COMMEN	NCEMENT DATE is the30	day of December, 2004.	
5.	The RENTAL PAYMENT CO	MMENCEMENT DATE is the	30 day of January, 2005.	
6.	All terms and provisions of th	e Lease Schedule shall remain i	full force and effect, except as otherwise p	provided below:
	- ACQUISITION COST: \$			
	- LEASE TERM:	months.		
	- RENTAL PAYMENTS:	Number of Rental Payment	Rental Payment Amount	
		N/A	N/A	
	- ADVANCE RENTAL PAY	MENT (S): First N/A	and last N/A	
	- SECURITY DEPOSIT:	N/A %.		
Dated:	DECEMBER, 2004			
Agreed	and Accepted:			
FLEET	CAPITAL CORPORATION	BAY	STATE GAS COMPANY	-
By:	Getricia Smi	ek-Sieu By.	18/1/	
Name:		n-DisuNam	David & Vajda	
Title:	Vice President	Title:	Vice President and Trea	surer

RESPONSE OF BAY STATE GAS COMPANY TO RECORD REQUESTS FROM THE D.T.E. D.T.E. 05-27

Date: July 13, 2005

Responsible: John Skirtich, Consultant (Revenue Requirements)

RR-DTE-36: Re: Exh. BSG/JES-1, Sch. JES-7; provide an estimate of retirements (in main accounts) after the test year that would reduce plant additions, comparable to the main additions that Mr. Skirtich is proposing to be included in rate base not yet closed to a plant accounts. Recompute test year depreciation.

Response: Please see Table RR-DTE-36 below.

TABLE RR-DTE-36

(Page 18, Ln 5, 2004 An Report)	<u>nual</u>	Additions (1)	Retirements (2)	<u>Percentage</u> (3 = 2 / 1)	
Account 367 Mains		14,454,515	1,457,655	10.08%	
<u>Description</u>	Gas Plant	Accumulated	Accrual	Depreciation	
	Account	<u>Plant</u>	Rate	Expense	Reference
	(1)	(2)	(3)	$(4 = 2 \times 3)$	(5)
		\$	%	\$	
Mains: Plastic	367	1,053,621	2.17	22,864	WP-JES 7, Page 2, Ln 20
Retirement Percentage		10.08%			
Estimated Retirements		106,205	2.17	2,305	
Depreciation				20,559	

RESPONSE OF BAY STATE GAS COMPANY TO RECORD REQUESTS FROM THE D.T.E. D.T.E. 05-27

Date: July 13, 2005

Responsible: John Skirtich, Consultant (Revenue Requirements)

RR-DTE-37: Reconcile \$3,199,694 on Sch. JES-6, p. 9 of 20. Is the expense an

increase or decrease from test year level, and by how much?

Response: Bay State's filed for level is lower than the per book amount by \$12,133.

Please see Table RR-DTE-37 below.

Table RR-DTE-37

ln. No	Description	Amount
<u></u>	<u> </u>	(\$)
1	Gross Accrual	9,549,525
2	Special Accrual	245,169
3	Total Bad Debt Expense related to Gas Revenue	9,794,694
4	Less Bad Debt transferred to CGAC	6,595,000
5	Bad Debt related to Distribution Service Per Books	3,199,694
6	Amount included in Filing (JES-6, Pg. 9 Ln. 11)	10,305,726
7	Amount transferred to CGAC (JES-4, Col. 32, Ln. 19)	7,118,165
8	Bad Debt related to Distribution Service Per Filing	3,187,561
9	Difference (Line 8 less Line 5)	(12,133)

RESPONSE OF BAY STATE GAS COMPANY TO RECORD REQUESTS FROM THE D.T.E. D.T.E. 05-27

Date: July 13, 2005

Responsible: John Skirtich, Consultant (Revenue Requirements)

RR-DTE-41: Reconcile D.T.E. 16-4 with Sch. JES-15, line 1, December 2003 materials and supplies balances: \$3,157,952 in D.T.E. 16-4 with \$3,075,595 on Sch. JES-15, line 1.

Response: Sch. JES-15, line 1 includes the following from the 2003 Annual Report to the D.T.E.

\$
Page 24, Line 4, Materials & Operating Supplies (Account 154) 3,157,952

Page 24, Line 5, Merchandise (Account 155) 60

Page 24, Line 10, Stores Expense (Account 163) (82,419)

3,075,593

Total December, 2003

RESPONSE OF BAY STATE GAS COMPANY TO RECORD REQUESTS FROM THE D.T.E. D.T.E. 05-27

Date: July 13, 2005

Responsible: John Skirtich, Consultant (Revenue Requirements)

RR-DTE-42: Identify the plant held for future use in D.T.E. 16-5. What is the plant

held for future use shown for 1997-2001; explain the nature and

description of the plant.

Response: A parcel of land was held from the sale of the Westborough office building

and land sale. This parcel was located near the access road to the Westborough facility. The purpose of this land was to site a new building for Energy USA at a future date. In 2001 it was discovered, that at the time of the closing on the building and land sale, the property could not be separated and the entire property was sold. That information was not passed on to the Plant Accounting department so the land remained in account 104 until 2001. In 2001 the land was written off as a loss on the

sale of plant assets.

RESPONSE OF BAY STATE GAS COMPANY TO RECORD REQUESTS FROM THE D.T.E. D.T.E. 05-27

Date: July 13, 2005

Responsible: John Skirtich, Consultant (Revenue Requirements)

RR-DTE-43: Provide Attachments A and B as referred to in the Company's response

to Information Request DTE-16-7.

Response:

Please see Attachment RR-DTE-43.

Attachment A

Bay State Gas Company Conversion Burner & Water Heater Analysis Historical Method As of December 31, 2002

181-4	Handana		200 0
water	Heaters	ACCU	300.0

Water neaters Acc	1 300.0			Dehi Mate -	1.00%				
	Year A	dditions		1999 Expense	2000 Expense	2001 Expense	2002 Expense	Accumulative Accrual thru 2002	Net Value
	1999 2000 2001 2002 2003	2,924,921 3,097,538 633,527 1,872,306			206,499	206,499 218,686	(half-year) 206,499 218,686 44,727 66,092	619,498 437,372 44,727 66,092	2,305,423 2,660,166 588,800 1,806,213
		8,528,292			206,499	425,186	536,005	1,167,690	7,360,602
Per Books		3,627,579						(3,616,445)	7,244,023
Adjustment Neede	d .	4,900,713						4,784,135	116,578
Retroactive Adj:	DR 101 CR 403 CR 108	4,900,713 (116,578) (4,784,135)							

Depr Rate =

Conversion Burners Acct 386.3						Depr Rate = 4.16%					
	Year	Additions	1996 Expense	1997 Expense	1998 Expense	1999 Expense	2000 Expense	2001 Expense	2002 Expense	Accumulative Accrual thru 2002	Net Value
									(half-year)		
	1996			41,209	41,209	41,209	41,209	41,209	41,209	247,254	743,348
	1997	993,930			41,347	41,347	41,347	41,347	41,347	206,737	787,193
	1998	1,161,908				48,335	48,335	48,335	48,335	193,341	968,567
	1999	667,617					27,773	27,773	27,773	83,319	584,299
	2000	437,420						18,197	18,197	36,393	401,027
	2001	1,534,571							63,838	63,838	1,470,733
	2002	196,732							4,092	4,092	192,640
	2003										
		5,982,782		41,209	82,557	130,892	158,665	176,862	244,792	834,976	5,147,806
Per Books		5,111,400								306,767	4,804,633
Adjustment Need	ed	871,382								528,209	343,173
Retroactive Adj:	DR 101	871,382									
	CR 108	(528,209)									
	CR 403	(343,173)									
Combined Entry:	DR 101	5,772,095									
	CR 108	(5,312,343)									
	CR 403	(459,752)									

Note: Combined retroactive effect on depreciation expense for credit of \$459,752 can be attributed to a variety of adjustments to both aged plant and reserve balances since 1997. These include, among other items, depreciation rates that were improperly applied to subaccounts and retirements erroneously recorded to BSG accounts instead of NU accounts.

Attachment RR-DTE-43 Page 2 of 4

Attachment B

Bay State Gas Company Conversion Burner & Water Heater Analysis Historical Method As of October 31, 2003

Water Heaters Acct 386.0

Depr Rate = 7.06%

Year	Additions		2003 Expense thru 10/03	2003 Est Exp 11/03-12/03	2003 Esi Exp thru 12/03	
1999	2,924,921		154,875	51,625	206,499	
2000 2001	3,097,538 633,527		164,015 33,545	54,672 11,182	218,686 44,727	
2002 2003	1,872,306 2,766,368		99,139 124,792	33,046 32,551	132,185 157,343	(Schedule B-2)
New Method	11,294,660		576,365	183,075	759,441	
Per Books (Schedule B-1)			349,791	76,428	426,218	
Adjustment			226,575	106,648	333,222	
Retroactive Adj:		DR 403 CR 108	226,575 (226,575)			

4.16% Depr Rate = Conversion Burners Acct 386,3 2003 Expense 2003 Est Exp 2003 Est Exp Year Additions thru 10/03 11/03-12/03 ihru 12/03 30,907 10,302 41,209 1996 990,603 41,347 1997 993,930 31,011 10,337 12.084 48,335 1,161,908 36,252 1998 1999 667,617 20.830 6,943 27,773 13,648 4,549 18,197 2000 437,420

47,879 15,960 63,838 2001 1,534,571 2,046 6,138 8,184 2002 196,732 1,743,232 44,877 9.116 53,993 (Schedule B-2) 2003 71,337 302,877 New Method 7,726,014 231,539

236,676 47,536 284,211 Per Books (Schedule B-1) 23,802 18,665 (5,136)Adjustment

DR 403 (5,136)Retroactive Adj: CR 108 5,136

Consolidated: New Method 19,020,674 807,905 254,413 1,062,317 586,466 123,963 Per Books

130,449 351,888 = Estimated increase in annual depreciation 221,438 Adjustment 221,438

(238, 314)

Consolidated Retroactive Adj: **CR 108** (221,438)5,772,095 Retroactive Adj Consolidated Retroactive Adj (Attachment A & B): DR 101 Estimated Addtl Exp **CR 108** (5,533,782)

DR 403

CR 403

130,449 Est Net Depreciation Effect for 2003 (107,864)

(238,314)

Note: Per Books balances on Attachment B were changed to reflect retroactive adjustment made in September business (Schedule B-1).

From Above	19,020,674
Boiler	569,752
	19,590,426
101 Retro Adj Made	(5,772,095)
	13,818,331
Un-amortized Balances	204,151
Current 386 Balance =	14,022,482

Attachment RR-DTE-43 Page 3 of 4

Bay State Gas Company 2003 Actual Depreciation Expense Per Books Water Heaters - Account 386.0 Schedule B-1

Plant Balance	Evnence		
(1999-2005 Villages)	Expense		
6,892,964.73	40,553.61		7.06% = Depr Rate
7,188,451.66	42,292.06		
7,188,451.66	42,292.06		
7,646,187.23	44,985.07		
7,646,187.23	44,985.07		
7,646,187.23	44,985.07		
7,871,260.47	46,309.25		
7,871,260.47	46,309.25		
6,312,058.42	(41,134.54)		
6,495,255.42	38,213.75	349,790.64	
6,495,255.42	38,213.75		
6,495,255.42	38,213.75	76,427.51	
	426.218.15		
	(1999-2003 Vintages) 6,892,964.73 7,188,451.66 7,188,451.66 7,646,187.23 7,646,187.23 7,646,187.23 7,871,260.47 7,871,260.47 6,312,058.42 6,495,255.42 6,495,255.42	(1999-2003 Vintages) Expense 6,892,964.73	(1999-2003 Vintages) Expense 6,892,964.73

Bay State Gas Company 2003 Actual Depreciation Expense Per Books Conversion Burners - Account 386.3

	Plant Balance			
Month	(1996-2003 Vintages)	Expense		4.16% = Depr Rate
January-03	5,111,399.66	17.719.52		
February-03	5,142,343.42	17,826.79		
March-03	5,142,343.42	17,826.79		
April-03	5,161,327.96	17,892.60		
May-03	5,161,327.96	17,892.60		
June-03	5,161,327.96	17,892.60		
July-03	5,189,655.90	17,990.81		
August-03	5,189,655.90	17,990.81		
September-03	6,852,626.90	69,875.45		
October-03	6,856,106.85	23,767.84	236,675.82	
November-03	6,856,106.85	23,767.84		
December-03	6,856,106.85	23,767.84	47,535.67	

284,211.49

Note: Correction was made in September 2003 to reclass \$1,662,971 from Account 386.0 to 386.3. This amount represents the conversion burner cost from the lease buyout that was recorded to plant-in-service in January 2003 business.

The retroactive effect on depreciation expense was adjusted in September 2003.

Bay State Gas Company Conversion Burner & Water Heater Analysis 2003 Depreciation Expense - Vintage 2003 Layer As of September 30, 2003

Schedule B-2

As of September 30, 20	03				
			Depr Rate =	7.06%	
Water Heaters		Cumulative	2003 Expense	2003 Est Exp	2003 Est Exp
	Additions	Balance	thru 9/03	10/03-12/03	thru 12/03
January-03	1,602,415.00	1,602,415.00	9,427.54		
February-03	295,486.93	1,897,901.93	11,165.99		
March-03	(371,507.00)	1,526,394.93	8,980.29		
April-03	457,735.57	1,984,130.50	11,673.30		
May-03		1,984,130.50	11,673.30		
June-03		1,984,130.50	11,673.30		
July-03	457,121.75	2,441,252.25	14,362.70		
August-03		2,441,252.25	14,362.70		
September-03	141,919.09	2,583,171.34	15,197.66		
October-03	183,197.00	2,766,368.34	16,275.47		
November-03		2,766,368.34		16,275.47	
December-03		2,766,368.34		16,275.47	
Total	2,766,368.34		124,792.25	32,550.93	157,343.19
			Depr Rate =	4.16%	
		0	0000 5	2002 5-4 5-	2000 5-4 5-
Conversion Burners		Cumulative	2003 Expense	2003 Est Exp	2003 Est Exp
	Additions	Balance	thru 9/03	10/03-12/03	thru 12/03
January-03	1,662,971.00	1,662,971.00	4,348.36		
February-03	30,943.76	1,693,914.76	4,429.27		
March-03	0.00	1,693,914.76	4,429.27		
April-03	18,984.54	1,712,899.30	4,478.91		
May-03	10,904.54	1,712,899.30	4,478.91		
June-03	00 000 74	1,712,899.30	4,478.91		
July-03	30,332.71	1,743,232.01	4,558.23		
August-03		1,743,232.01	4,558.23		
September-03		1,743,232.01	4,558.23		
October-03		1,743,232.01	4,558.23	4.550.00	
November-03		1,743,232.01		4,558.23	
December-03		1,743,232.01		4,558.23	
Total	1,743,232.01		44,876.57	9,116.46	53,993.02

RESPONSE OF BAY STATE GAS COMPANY TO RECORD REQUESTS FROM THE MASS OILHEAT COUNCIL D.T.E. 05-27

Date: July 13, 2005

Responsible: John Skirtich, Consultant (Revenue Requirements)

RR-MOC-01: Reconcile MOC 1-4 with MOC 1-1 re trade ally expenses: \$11,609 v.

\$2,000.

Response: MOC-01-01 includes both the \$11,609 and the \$2,000. The \$11,609 is

listed as Other Trade Ally Expenses, which are broken out in detail, and the \$2,000 is listed as Contractor Incentives. The \$2,000 in MOC-01-04 only includes contractor incentives. There were no expenses related to the other categories listed in the request (advertising subsidies, training,

rebates and equipment giveaways) in 2004.